

WHAT IS CLAIMED IS:

1
1 1. A method for estimating repair accuracy of a mask
2 shop comprising the steps of:
3 providing a mask having a light-shielding layer with a
4 pattern of a plurality of lines, each of which has a defect;
5 using the mask shop to repair the defects, whereby
6 contaminated areas are formed in the vicinity of areas where
7 the defects are repaired;
8 measuring first light intensities of the contaminated
9 areas, and second and third light intensities of two sides
10 of the contaminated areas; and
11 calculating ratios of means of the second and third
12 light intensities to the first light intensities for
13 estimating the repair accuracy.

1
1 2. The method as claimed in claim 1 further comprising
2 the step of:
3 calculating a mean and 3σ value of the ratios.

1
1 3. The method as claimed in claim 1 wherein the lines
2 comprise a plurality of vertical and horizontal lines.

1
1 4. The method as claimed in claim 3 wherein widths of
2 the lines range from $0.5\mu\text{m}$ to $2\mu\text{m}$.

1
1 5. The method as claimed in claim 1 wherein widths of
2 the defects along the lines range from $0.3\mu\text{m}$ to $1.5\mu\text{m}$.

Client's ref.:90048
File:0548-6878usf/Vincent

1 6. The method as claimed in claim 1 wherein the defects
2 are indentations on the lines.

1

1 7. The method as claimed in claim 1 wherein the light-
2 shielding layer is a chrome layer.

1003554 1003554